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Special Issue

**DEVELOPMENT OF ELECTRICAL EXCITABILITY:
MECHANISMS AND ROLES
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Cover: Pseudocolor images of spontaneous elevations of intracellular Ca²⁺ (arrows) localized in growth cones of *Xenopus* primary spinal neurons differentiating in culture. These Ca²⁺ waves regulate the rate of neurite outgrowth, and neurite extension is inversely proportional to wave frequency. Bottom panel follows the top one by 20 seconds, demonstrating the dynamic changes in intracellular Ca²⁺. Cells loaded with fluo-3AM and confocally imaged by Xiaonan Gu, UCSD. For details, see article by Spitzer and Ribera, pages 190–197, this issue.

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Cover: In *Drosophila melanogaster*, new transgenic techniques allow expression of a variety of foreign genes in selected cells. This provides excellent cellular markers, as shown by the pharyngeal motor neurons in this figure which express the bacterial *lacZ* gene. More important, these cells can be manipulated genetically in various ways. For example, block of synaptic activity in these motor neurons by directed tetanus toxin expression causes a defect in food-uptake. See the article by Tissot et al., pages 237–250, this issue.

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Cover: A 3D reconstruction of the eye bulb (top) and a close-up of the optic lobes (bottom) of the stalk-eyed fly *Cyrtodiopsis quinqueguttata*. All visual neuropils: lamina (green), medulla (turquoise), lobula (purple), and lobula plate (yellow) are contained in the bulb. From Buschbeck and Hoy, pages 449–467, this issue.

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Cover: Time-lapse sequence of the *Drosophila* motoneuron RP2 labelled with Dil (red), navigating in an embryo in which UAS-Tau-GFP (green) is driven by the *ftz_{ng}*-GAL4 effector (times given in mins). See the article by Murray et al., pages 607–621, this issue.